

# GLOBAL CLIMATE CHANGE: SARI/ENERGY

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*The South Asia Regional Initiative for Energy Cooperation and Development (SARI/Energy) encourages the countries of South Asia to take a cooperative regional approach to energy development and trade in clean energy resources. SARI/Energy is at the center of efforts to strengthen public-private sector partnerships and regional economic cooperation. By promoting rational use of regional energy supplies, SARI/Energy contributes to energy security, reduced greenhouse gas emissions, and overall improvements in environmental quality and human health in the region.*

**Background.** The USAID South Asia Regional Initiative for Energy (SARI/Energy) is an eight country program that promotes regional energy security through energy market development, cross-border energy trade, and increased access to clean energy. SARI/Energy countries include: Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, Sri Lanka and the Maldives. SARI/Energy has been in operation since 2000; in 2004, Afghanistan and Pakistan joined.

Rapid economic growth is driving energy demand in South Asia at approximately 6-8% a year. South Asian national electricity grids are powered by a mix of domestic coal, natural gas and hydropower, with some wind power. But inefficiencies and the slow pace of reform result in persistent and costly electrical power outages throughout the region. Petroleum consumption in the industrial and transportation sectors is increasing South Asia's dependence on imported oil and natural gas.

At present, there is little exchange of energy across borders in South Asia, or with Central Asia. However, within South Asia there are significant but disparately located energy reserves such as low quality coal, developable hydropower potential, and a significant unharnessed wind and solar resource. The neighboring Central Asian region offers potential low-cost sources of hydro and thermal electricity.

These South Asian energy resource and demand trends are coupled with a growing Indian capacity for world class engineering and construction among both the parastatals and the private sector. However, there remains a broad lack of strong institutional, legal and commercial structures to facilitate sustainable energy sector investment and growth. Encouragingly, there is a nascent trend toward harnessing the strengths of the market place, primarily in India, to capture energy sector cost, finance and investment opportunities. Coupled with the opening of regional and trans-regional relations and trade, and integrated with global markets, this trend could be the most significant step toward energy security that South Asia has seen for decades.

**Sector-Specific Climate Change Activities.** SARI/Energy activities related to the reduction of greenhouse gases are a major focus of the program. Towards this end, SARI/Energy established a Sustainable Guarantee Fund (SGF) in Sri Lanka. This fund will leverage investments up to US \$ 4 million by providing partial financial guarantees to commercial energy efficiency and conservation projects due to a Government guarantee commitment of US \$ 500,000.

**USAID's partners in climate change activities in SARI/Energy include\*:**

- American Chambers of Commerce in Bangladesh, India, Maldives, Nepal, and Sri Lanka
- National Chambers of Commerce in Bangladesh, Bhutan, India, Nepal, and Sri Lanka
- National Chambers of Industry in Bangladesh, Bhutan, India, Nepal, and Sri Lanka
- Energy Forums of India and Sri Lanka
- Energy associations such as Bangladesh Energy Companies Association and Sri Lanka Solar Energy Association
- Academy for Educational Development (AED)
- Confederation of Indian Industries (CII)
- Core International
- Independent Power Producers Association of Nepal
- Institute of International Education (IIE)
- Nexant
- U.S. Chamber of Commerce (USCOC)
- U.S. Department of State
- U.S. Department of Energy/Energy Information Administration
- U.S. Department of Energy/National Renewable Energy Laboratory (NREL)
- United States Energy Association (USEA)

\* Because partners change as new activities arise, this list of partners is not comprehensive.

For more information on the SARI/Energy program, please visit the SARI/Energy Web site at:

**<http://www.sari-energy.org>**

The program is training Afghans on critically needed diesel generator set operation and maintenance. SARI/Energy supported community based programs on regional standards for micro-hydro, rural electrification and distributed generation, and environmental issues in energy trade. Three household small wind systems were implemented in Sri Lanka, Nepal, and India. Wind and solar mapping were completed in Sri Lanka and Maldives, and training was given to key stakeholders for developing grid connected wind and solar power projects, technology options analysis, and costs for solar and wind hybrid projects. Wind and solar mapping activities are being conducted in Afghanistan and Pakistan as well.

Finally, SARI/Energy has established the Rural Energy Training Network (RETN), which links development institutions and utilities and adapts successful rural energy service models for local implementation. RETN has fostered adoption of new training and management programs among member institutions for sustained capacity building.